

REMARKS

This amendment is being filed along with a Request for Continued Examination (RCE) in response to the final Office Action having a mailing date of December 11, 2007. Various claims are amended as shown. New claim 32 is added. No new matter has been added. With this amendment, claims 1-32 are pending in the application.

I. Supplemental information disclosure statement (IDS)

A supplemental IDS is being filed herewith to submit an additional reference for entry in the record. Because this supplemental IDS is being filed along with the present RCE, an IDS fee and/or a certification is not required. It is kindly requested that an Examiner-initialed copy of this supplemental IDS be provided along with the next communication, so as to confirm that the reference listed therein has been entered and considered.

II. Discussion of the claims and cited references

Claims 1, 3-6, 9-15, 17-20, 22, 24, and 27-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Crow (U.S. Patent No. 6,944,672) in view of Weaver (U.S. Patent Application Publication No. 2003/0039248). Claims 2 and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Crow in view of Weaver and in further view of Marleux (U.S. Patent No. 7,089,486). Claims 7, 16, 21, 29, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Crow in view of Weaver and in further view of Elnathan (U.S. Patent No. 7,245,616). Claims 8, 23, 25, and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Crow in view of Weaver and in further view of Basso (U.S. Patent No. 7,065,086).

For the reasons set forth below, these rejections are respectfully traversed. It is therefore kindly requested that the Examiner reconsider and withdraw the rejections.

A. Independent claim 1

Independent claim 1 as amended herein recites, *inter alia*, “processing the head fragment to determine a destination address for said head fragment” and “applying said

destination address for said head fragment, which was determined by said processing of said head fragment, to at least one corresponding non-head fragment...” It is respectfully submitted that these limitations are not met by Crow, whether singly or in combination with the other cited references.

Pages 3-4 of the final Office Action have admitted that Crow does not disclose “the primary/head fragment includes a destination address...”

In particular, Crow repeats his redundant processing/translation on all of his fragments in order to repeatedly determine the destination address for each and every fragment, rather applying results of previously performed processing (which has already determined the destination address for the head fragment) to the non-head fragments. Stated in another way, Crow has to repeatedly determine the destination address for each non-head fragment, rather than applying to the non-head fragments the destination address that was previously determined for the head fragment.

Crow discloses a technique where he performs address translation on a “primary fragment” by using the header information in the primary packet to identify a translation entry 90 that specifies a destination address where the primary fragment should be routed. A translation engine 80 then uses the identified translation entry 90 to translate an address of the primary packet from one address to another (destination) address. Crow describes this process in his column 6, lines 26-34 reproduced below:

“At step 110, the translation engine 80 identifies a translation entry 90 in the translation table 82 for the primary fragment 32 using the IP and transport header information 40 and 42. At step 112, the translation engine 80 translates addressing information for the primary fragment 32 using the identified translation entry 90. At this point, translation for the primary fragment 32 is complete and the primary fragment 32 may be directed to the appropriate receiver.”

Next, Crow creates a “fragment-context” 92 for the identified translation entry 90. The fragment-context 92 operates as a piece of data to associate a “secondary fragment” to the translation entry 90 that was previously used for the primary fragment. Crow describes this process in his column 6, lines 35-52 reproduced below (emphasis ours):

“Proceeding to step 114, the translation engine 80 generates a fragment-context 92 for the identified translation entry. The fragment-context 92 may be any structure or data capable of associating secondary fragment 34 with address translation information for translating addressing information in the secondary fragments 34. As described in more detail below, the fragment-context 92 is used to associate secondary fragments 34 with the translation entry 90 in the translation table 82 to allow translation of the addressing information in the secondary fragments 34. In one embodiment, the fragment-context 92 is created using the 16-bit identification information in the IP header 40 of the primary fragment 32. The fragment-context 92 is associated with the translation entry 90 identified by the primary fragment 34. In this embodiment, the translation engine 80 may translate secondary fragments 34 by matching their IP header to the fragment-context 92 and using the associated entry 90 for translation.”

As is evident from the quoted passage above, once the correct translation entry 90 is identified for the secondary fragment (using the fragment-context 92 generated from the primary fragment to identify the specific translation entry 90), the translation engine 80 indeed needs to perform an address translation for the secondary packet using the translation entry 90, in order to newly determine a destination address for the secondary fragment. That is, the translation engine 80 redundantly performs the same address translation for the secondary packet as was performed for the primary packet, in order to newly identify a destination address (such as translating an inside address to an outside address) for the secondary packet.

Accordingly, Crow does not meet the limitations of amended claim 1 that require “applying said destination address for said head fragment, which was determined by said processing of said head fragment, to at least one corresponding non-head fragment...”

Weaver does not cure the deficiencies of Crow.

Weaver’s Figure 4 and paragraphs [0023]-[0024] disclose that the destination address is extracted from all packet segments, rather than determining the destination address for a head fragment and then applying the determined destination address (obtained by processing the head fragment) to the non-head fragments. As clearly depicted in his Figure 4, Weaver extracts the destination IP address from the beginning segment (blocks 132-134); then Weaver examines the header of the next fragment and extracts the destination address therefrom (blocks 142, back to blocks 128-130, then repeats blocks 132-134); and finally, Weaver reaches the final segment and extracts the destination address therefrom (block 130/“No” and block 144).

Accordingly, since Weaver performs redundant extraction of the destination address from each and every packet, Weaver also does not meet the limitations of claim 1 that require “applying said destination address for said head fragment, which was determined by said processing of said head fragment, to at least one corresponding non-head fragment...”

Since Weaver does not supply the missing teachings of Crow, all of the limitations of claim 1 have not been met and a *prima facie* case of obviousness has not been established. The Federal Circuit has held many times that to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Accordingly, it is respectfully submitted that claim 1 is allowable.

B. Discussion of the other independent claims

Independent claims 9, 13, 17, 20, and 28 are amended herein to recite, *inter alia* and using varying language, that the determined destination address is applied to the non-head

fragment(s). Thus for reasons similar as those explained above, claims 9, 13, 17, 20, and 28 are also allowable.

C. Discussion of dependent claims 7, 16, and 30

Dependent claim 7 as amended herein recites, *inter alia*, “adding a routing tag...that includes said determined destination address.” In originally rejecting claim 7, the final Office Action cited column 4, lines 43-48 of Elnathan. However, it is respectfully submitted that Elnathan does not meet the limitations of claim 7 that pertain to the routing tag.

Specifically, column 4, lines 43-48 of Elnathan provides the following description (emphasis ours):

“The circuit 200 includes 16 slicers 260. The slicers 260 are used to send data to and from the fabric 270. The slicers 260 include an ingress portion and an egress portion. The ingress portion divides packets (also referred to as ‘frames’) that are received from ports into cells, attaches an appropriate tag to each cell to identify the packet with which the cell is associated, and forwards the cells to the fabric 270. The egress portion combines cells received from the fabric 270 to form an Ethernet frame (i.e. one type of frame).”

Accordingly from the above-quoted passage of Elnathan, it is abundantly clear that the tags (which he attaches to each of his cells) are used to “identify the packet with which the cell is associated.” Elnathan does not disclose, teach, or suggest that his tags include a destination address, as recited in claim 7. Indeed, it appears that Elnathan does not even discuss destination addresses at all anywhere in his disclosure.

Thus, claim 7 is allowable.

Dependent claims 16 and 30 also recite that the routing tag added to the non-head fragments “includes the determined destination address,” and thus claims 16 and 30 are allowable as well.

D. Other claim amendments

Various other amendments are made to the claims as shown to provide appropriate antecedent basis, to provide consistent recitations between the claims, to remove extraneous/unnecessary language, to more precisely recite the subject matter contained therein, and/or to otherwise place such claims in better form.

III. Conclusion

It is respectfully submitted that the independent claims are in condition for allowance. The dependent claims that depend directly or indirectly on these independent claims are likewise allowable based on at least the same reasons and based on the recitations contained in each dependent claim.

If there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the attorney of record (Dennis M. de Guzman) at (206) 622-4900.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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